PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.:	09/558,329
Filed:	04/25/2000
Art Unit:	1711
Examiner:	Cheryl Juska
Applicant:	Stern et al.
Title:	Stitch Bonded Fabric and Fluid-Retaining Fabric Made Therewith
Conf. No.:	9722

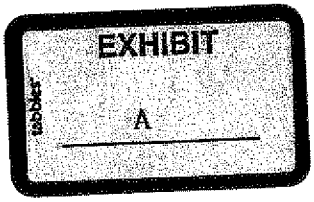
DECLARATION OF E. LINWOOD WRIGHT
PURSUANT TO 37 C.F.R. § 1.132

I, E. Linwood Wright, declare as follows:

1. I make this declaration in support of the above-captioned application, and submit that I am skilled in the art to which the invention pertains. I have attached a copy of my curriculum vitae to this declaration.

2. I earned a Bachelor of Science degree in Chemistry, and a Master of Science degree in Physical Chemistry, both from Duke University in Durham, North Carolina. In addition, I completed the Executive Program at the University of Virginia's Darden Graduate School of Business in Charlottesville, Virginia.

3. I have worked in the textile industry for the past forty-nine years, having spent all of that time in various positions with Dan River Inc. of Danville, Virginia. I began my career with Dan River in 1956 as a research chemist, had numerous roles and responsibilities in research and development, culminating in my role as Vice President of Research and Development. I retired in 2004 as Vice President of Quality and Development. Since that time, I have continued to work with Dan River on a consulting basis.



4. For over thirty years during my tenure at Dan River, I was responsible for a wide variety of fabrics, including design thereof, fabric quality, and product quality, such fabrics being used in apparel and for home and industrial products. Over that time, I have gained extensive experience with, and broad knowledge about, textiles, textile materials, and textile processing, as well as the techniques, including stitching and knitting techniques, used for the construction of textile products, such as the stitch bonded fabric of the present invention. In addition, my primary personal responsibility for the last twenty years has been product, and end-use, innovation.

5. During my career, I also have chaired various professional association committees, including committees directed to product lines that encompass apparel, upholstery, bedding, and other home textile products. I chaired both the consumer products committee and the home textiles subcommittee of the former American Textile Manufacturer's Institute, and I currently chair the home textiles committee of the National Textile Association, which is concerned primarily with top of the bed items.

6. Dan River Inc. is a textile supplier to the assignee of the above-referenced application.

7. I believe that I am qualified to address issues regarding the stitch bonded fabric of the present invention, including the construction thereof, as well as the distinct differences between said stitch bonded fabric and the textile products in the prior art currently cited by Examiner.

8. I am familiar with the prosecution of the above-referenced matter. In particular, I have read U.S. Patent No. 5,902,757 ("Stern") and the pending claims (as presented in the April 29, 2005 reply), the August 5, 2005 office action, including the cited prior art[1], the May 14, 2004 reply brief, and the March 15, 2004 Examiner's Answer.

9. Having considered these materials, I understand that Appellant, in response to the Board's Decision, amended each of the independent claims in their April 29, 2005 reply further defining the stitch bonded yarn face(s) of the present invention to be effectively continuous such that the corresponding web surface is not generally exposed at the associated yarn face. I further understand that Examiner has continued to reject all pending claims, 1-87, based upon one or more of Sternlieb, Lefkowitz, Ott, Gillies, Kyle, and Taylor. More specifically, one of Examiner's primary positions is that the newly added claim language "effectively continuous" and "not generally exposed," which further defines the stitch bonded yarn face(s), is too subjective to be relied upon for distinguishing the present invention from the prior art. I respectfully disagree.

10. One skilled in the art appreciates that the additional terminology further defining the yarn faces of the present invention, in fact, provides a sufficient level of objectivity which can be relied upon for distinguishing the present invention from the prior art. Notably, Stern clearly discloses that the yarns for providing the yarn faces of Applicants' stitch bonded fabric are "of a sufficient density" such that the yarn segments 18', 18'' cooperate to define, respectively, top and bottom yarn faces of fabric. See col. 2, lines 52-59. To provide these yarn

1 U.S. Patent No. 4,026,129 ("Sternlieb"), U.S. Patent No. 4,181,514 ("Lefkowitz"), U.S. Patent No. 4,675,226 ("Ott"), U.S. Patent No. 5,356,402 ("Gillies"), U.S. Patent No. 4,128,686 ("Kyle"), and European Patent No. 261,904 ("Taylor").

faces of fabric, Stern further explains that the yarns 18 are knitted in a flat stitch construction across the felt web upper surface to form underlaps as at 30 in FIG. 3 and overlaps as at 32 in FIG. 4, such underlaps 30 and overlaps 32 being the result of the usual knit construction provided by stitch bonding, such as with existing Malipol-type machines as are known in the art. See col. 2, line 66 to col. 3, line 5. Noticeably, a benefit of such a yarn face is that the fabric, such as for an incontinent pad, provides a comfortable surface for a patient at the top yarn face. In addition, the bottom yarn face provides a surface that may be used, for example, for adhesive connection to a barrier layer without interfering with either the structural rigidity or absorbency provided by the felt web. Understandably, one of ordinary skill in the art is readily able to optimize the spacing between the rows of stitch bonded yarns, as based upon yarn density, for a particular application to provide the effectively continuous yarn face(s) of fabric, such stitched yarn face not allowing the felt web surface to be generally exposed upon close inspection. In other words, the felt, or felt web, cannot be readily seen, for example, through the top yarn face unless closely inspected using magnification and does not significantly protrude felt fibers against the patient's skin. Accordingly, "effectively continuous" means that the felt web surface is "not generally exposed," i.e. not readily viewable through the yarn face without magnification and not readily felt. Clearly, the effectively continuous nature of the yarn face is definite and a standard is provided for one of ordinary skill in the art to determine the scope of the claimed invention for distinguishing the present invention from the prior art.

11. To one skilled in the art, neither Sternlieb nor Lefkowitz disclose the stitch bonded yarn face of the present invention. More specifically, the stitch-bonding yarns in the present

case provide an effectively continuous face; whereas stitched knitting yarns 11, 13 in Fig. 7 of Sternlieb are spaced significantly from one another, thereby providing a substantial amount of exposed scrim sheet 9 and web of cardable fibers 1. It is abundantly clear to one skilled in the art that Sternlieb fails to teach, disclose or otherwise suggest any yarn face as recited in Applicants' claims. Concerning Lefkowitz, this patent is directed to a filter including a fibrous bat 2 with a number of stitch yarns 3, 4 significantly spaced from one another as shown particularly in Figs. 3 and 7 of that reference.[2] The stitch yarns 3, 4 "comprise metallic monofilament or multi filament yarns or glass multi filament yarns. Such yarns may be used alone or in combination with other non-metallic yarn materials." See col. 3, lines 1-4. Since Lefkowitz is directed to a filter, inherently, a fluid or other medium must pass through the fibrous bat and stitch yarns. Since the stitch yarns are metal, the material being filtered must escape the fibrous bat 2. If the stitch yarns produced an effectively continuous yarn face as claimed in Applicants' invention, then the filtered material is not able to escape the allegedly effectively continuous face. Therefore, the stitch yarns in Lefkowitz cannot be effectively continuous. In addition, Kyle and Taylor also fail to disclose the stitch bonded yarn face of the present invention insofar as neither reference teaches, suggests, or implies providing a yarn face that is effectively continuous so that the felt web is not generally exposed.

12. Also, in rejecting the current claims, Examiner up to this point has relied heavily on her own definition of Applicants' "felt web," such definition being "any nonwoven, web, or batting comprising discontinuous or staple fibers." In my expert opinion, Examiner has

[2] The identified figures in Sternlieb and Lefkowitz are considered to accurately portray those respective inventions in contrast to Figs. 3 and 4 of the present case which are "greatly exaggerated" as expressly stated in the specification.

improperly defined Applicants' "felt web" and has provided a grossly, overly broad interpretation. The use of "web," in "felt web," in Stern is clearly understood to mean simply "a layer or sheet" such that a "felt web" is a felt layer, i.e. a layer of felt. Concerning "felt," this is a well known term of art in the textile industry and, as of the time of the invention, is understood to mean a nonwoven sheet of matted material of wool, hair, fur, or manufactured fibers (e.g. polyester, polypropylene, or rayon) made by a combination of mechanical and chemical action, pressure, moisture, and heat, such matted material has structural integrity, i.e. tensile strength, in all directions. Due to the well understood meaning of felt in the textile industry, it is a simple exercise for one skilled in the art to recognize textiles that, in fact, are not felt webs. Accordingly, for purposes of differentiating the references cited against Applicant by Examiner in the August 5, 2005, I have conducted this exercise below.

13. Generally, Sternlieb, Lefkowitz, Ott, and Gillies individually, or in combination, fail to disclose a stitch bonded fabric which includes a felt. More specifically, Sternlieb discloses a dimensionally stable fabric including a layer of carded fibers reinforced by a woven fabric layer, said layer of carded fiber being unbonded, uncompacted, and unmatted and of intermingled, non-paralled fibers. To one skilled in the art, these layers of unmatted carded fibers and of woven fabric are not felts. Lefkowitz discloses a stitch knitted filter for high temperature fluids including a batt of relatively brittle fibers. To one skilled in the art, a batt of relatively brittle, unmatted fibers is not a felt. Ott discloses a stitch bonded composite wiper including a middle layer of cellulose natural fibers and outer layers of layers of either continuous filament thermoplastic fibers, meltblown thermoplastic microfibers or rayon fibers, such

unmatted inner and outer layers are not felt to one skilled in the art. Finally, Gilles discloses a reusable diaper including a median layer of carded and crosslaid viscose rayon fibers having a cross-section of substantially rigid multi-limbed configuration, this media layer is stitch bonded. To one skilled in the art, this median layer of carded and crosslaid viscose rayon fibers is not matted and, thus, not a felt.

14. Accordingly, none of Examiner's cited art discloses the combination of Applicants' stitch bonded yarn faces and felt, or felt web. And, while Ott and Gilles appear to disclose stitch bonded yarn faces and Kyle and Taylor appear to disclose a felt, or felt web, there simply is no motivation for one skilled in the art to modify or combine any of these references to arrive at Applicants' stitch bonded fabric, as is further explained next.

15. Kyle appears to provide an assembly for the management of incontinence which includes a layer of non-absorbent hydrophobic textile material, identified as a needled felt, through which urine can freely pass and a layer of absorbent hydrophilic textile material, such as a non-woven felted fabric, behind the non-absorbent layer to receive and absorb urine passing through the non-absorbent layer. These layers may be sewn, bonded, quilted or welded together. Advantageously, the assembly of Kyle purportedly provides absorbent properties superior to conventional paper incontinence pads. However, noticeably lacking from Kyle's assembly is Applicant's yarn face for providing patient comfort. In fact, there simply is no teaching, suggestion, or implication in Kyle motivating one of skill in the art to provide the assembly with an effectively continuous stitch bonded yarn face as Kyle clearly concerns itself with providing only a better absorbing incontinent pad. And, even assuming *arguendo* that one would consider the possibility that stitch bonding may be used to integrate the two layers of material in Kyle, there still lacks any motivation whatsoever to provide Kyle's incontinent pad with the specific

type of stitch bonded yarn faces, i.e. the effectively continuous yarn faces, of Ott and/or Gilles. As such, one skilled in the art simply is not motivated to provide Applicants' yarn face of fabric about the felt layer(s) of Kyle. In addition, Taylor, similar to Kyle, provides no teaching, suggestion, or implication to provide a yarn face, like Applicants, on its liquid absorbing pad. In fact, it would require destruction, i.e. complete removal, of the outer layer(s) of non-absorbent textile material of the pad so that the inner layer of nonwoven fibrous mat could be stitch bonded.

16. Furthermore, it should be emphasized that Gilles' stitch bonded median layer, as already discussed above, is incorporated between outer layers 12 and 16, thereby effectively hiding within the diaper any yarn face presented on the surface of the median layer. In stark contrast, Applicants' stitch bonded fabric includes a stitch bonded yarn face on the outside of the product to provide a soft, comfortable surface for a patient. Clearly, it is nonsensical, certainly to one skilled in the art, to combine Gilles' stitch bonded median layer with any reference, let alone Kyle, to provide Applicants' stitch bonded fabric having a yarn face that is situated on the outside of the product. Specifically concerning Ott, one skilled in the art also is not motivated to combine the wiper product of Ott with an incontinent pad, such as is disclosed in Kyle, in an effort to arrive at Applicants' fabric face product. Finally, it is noted that neither Ott nor Gilles teach, suggest, or imply replacing their stitch bonded fabrics with a felt insofar as each of the non-felt fabrics of Gilles and Ott are purposefully selected to obtain desired outcomes. Accordingly, one skilled in the art is not motivated to modify or combine one or more of Ott, Gilles, Kyle, and Taylor.

17. For all of the above reasons, one skilled in the art would neither look to Sternlieb, Lefkowitz, Ott, Gillies, Taylor nor Kyle, alone or in any combination, to arrive at Applicants' claimed invention, i.e. a stitch bonded fabric.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-referenced patent application as originally filed and/or any patents to be issued and/or granted thereon.

E. Linwood Wright

2/6/2006
Date

E. Linwood Wright
714 Lansbury Drive
Danville, VA 24540-1941
Phone: 434-836-2511 (home)
434-799-4874 (business)
434-250-2041 (mobile)

Current status: Retired, and working under contract for Dan River Inc. as a consultant

Most recent employer: Dan River Inc., Danville, VA

Most recent position: Vice-president, Quality and Development

Years with Dan River: 49

Job placements over years (all at Dan River Inc.):

1956-1960-Research Chemist
1960-1971-Group Leader, Applied Finishing Research
1971-1975-Director of Technical Services
1975-1979-Director of Research
1979-1984-Vice-President, Research and Development
1984-1986-President, Dan River Service Corporation
1986-1988-Vice-President, Research and Development
1988-2004-Vice-President, Quality and Development

Education:

Bachelor of Science, Chemistry-Duke University
Master of Science, Physical Chemistry-Duke University
The Executive Program, Darden Graduate School of Business, University of Virginia

Professional Affiliations:

Current Chairman, Home Textiles Committee, National Textile Association
Senior member, American Society for Quality
Senior member, American Association of Textile Chemists and Colorists
Past Chairman, Bed & Bath Sub-committee, American Textile Manufacturers Institute
Past Chairman, Consumer Affairs Committee, American Textile Manufacturers Institute
Past vice-chairman, Executive Committee for Research, American Association of Textile Chemists and Colorists
Instructor, N C State University, College of Textiles, Extension Department

Civic activities:

Member, Council, City of Danville, VA, 1986-1998
Vice-mayor, City of Danville, VA, 1990-1996
Mayor, City of Danville, VA, 1996-1998

Past president, Kiwanis Club of Danville, VA
Past president, Danville Museum of Fine Arts and History
Past president, Danville Concert Association
Past chairman, Virginia Philpott Manufacturing Extension Partnership
Past president, Danville Area Association for the Arts and Humanities
Member, Danville Development Council
Past chairman, Danville Development Council
Vice-chairman, Danville Regional Health Foundation
President, Future of the Piedmont Foundation
Chairman, Board of Trustees, Institute for Advanced Learning and Research

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.:	09/558,329
Filed:	April 25, 2000
Art Unit:	1711
Examiner:	Cheryl Juska
Applicant:	Stern et al.
Title:	Stitch Bonded Fabric and Fluid-Retaining Fabric Made Therewith
Atty Docket:	STAN-09RE
Conf. No.:	9722

SUPPLEMENTAL DECLARATION OF E. LINWOOD WRIGHT PURSUANT TO 37 C.F.R. § 1.132

I, E. Linwood Wright, previously provided my declaration that I understand was submitted with Applicant's Amendment filed February 6, 2006 in response to the Office Action mailed August 5, 2005. To complete the record, I further declare that (a) I was compensated at the rate of $100 per hour for my work related to my aforesaid declaration, and (b) I also prepared a declaration for the same assignee submitted in U.S. Application No. 10/251,163 (for which I was also compensated at the same hourly rate).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-referenced patent application as originally filed and/or any patents to be issued and/or granted thereon.

E. Linwood Wright

2/23/2006
Date

EXHIBIT B

RELATED PROCEEDINGS APPENDIX

Decision on Appeal mailed January 19, 2005 (Appeal No. 2005-0019).

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte RANDOLPH A. STERN
and
MICHAEL N. BYLES

Appeal No. 2005-0019
Reissue Application No. 09/558,329[1]

ON BRIEF

Before KRATZ, TIMM, and POTEATE, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL

This reissue application comes before us after a previous remand (Remand mailed December 18, 2002). In response to the remand, the Examiner reopened prosecution (Office Action mailed June 3, 2003), after which, Appellants requested reinstatement of the appeal (Supplemental Appeal Brief mailed October 6, 2003).

This reinstated appeal involves claims 1-87, which are all of the claims pending in this reissue application. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 134.

[1]Application for Reissue of U.S. Patent 5,902,757.

The Supplemental Appeal Brief does not address all the issues on appeal but, instead, incorporates by reference the prior briefs (Supp. Brief, p. 3, n.1). We, therefore, decide the reinstated appeal based on the issues and arguments presented to us in the Brief filed November 29, 2001 (Brief), Reply Brief filed April 12, 2002 (Reply Brief), Supplemental Brief filed October 6, 2003 (Supp. Brief), Answer mailed March 15, 2004, and the Reply Brief filed May 14, 2004 (Supp. Reply Brief).

INTRODUCTION

The claims on appeal are directed to a stitch bonded facing fabric and fluid retaining fabrics, such as incontinent pads, which include the stitch bonded fabric therein. Of the claims directed to the stitch bonded fabric, claim 1 illustrates the original patented invention while claims 30 and 65 illustrate the broadened subject matter sought in the reissue:[2]

1. A stitch bonded facing fabric comprising:

a first layer of hydrophobic felt;

a second layer of hydrophilic felt being adjacent to the first layer so as to define a felt web having an upper surface defined by an upper side of the first layer and a lower surface defined by a lower side of the second layer; and

a plurality of stitch bonding yarns repeatedly extending through the felt web with yarn segments extending across both the upper and lower surfaces of the felt web such that the yarn

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[2]The bulk of the issues on appeal can be resolved by considering the issues as represented by claims 1, 30, and 65. There is, therefore, no reason to discuss, here, the details of the claims directed to fluid retaining fabrics and incontinent pads.

segments extending across the felt web upper surface cooperate to form a top yarn face above the felt web upper surface and the yarn segments extending across the felt web lower surface cooperate to form a bottom yarn face below the felt web lower surface.

30. A stitch bonded facing fabric comprising:

a felt web having an upper surface and a lower surface; and

a plurality of stitch bonding yarns repeatedly extending though the felt web with yarn segments extending across both the upper and lower surfaces of the felt web such that the yarn segments extending across the felt web upper surface cooperate to form a top yarn face above the felt web upper surface and the yarn segment extending across the felt web lower surface cooperate to form a bottom yarn face below the felt web lower surface.

65. A stitch bonded facing fabric comprising:

a first layer of felt having hydrophilic properties and further having an outer surface; and

a plurality of stitch bonding yarns repeatedly extending though the first layer of felt with yarn segments extending across the outer surface of the layer of felt, such that the yarn segments extending across the felt layer outer surface cooperate to form a yarn face above the felt layer outer surface.

The Examiner maintains various grounds of rejection including rejections under 35 U.S.C. § 112, ¶ 1, § 102(b), and § 103(a). To support the rejections based on anticipation and obviousness, the Examiner relies upon the following prior art references:

Sternlieb	4,026,129	May 31, 1977
Kyle et al. (Kyle)	4,128,686	Dec. 5, 1978
Lefkowitz et al. (Lefkowitz)	4,181,514	Jan. 1, 1980
Ott	4,675,226	Jun. 23, 1987
Gillies et al. (Gillies)	5,356,402	Oct. 18, 1994
Taylor	EP 0 261 904	Mar. 30, 1988

The specific rejections maintained are as follows:

1. Claims 30-87 stand rejected under 35 U.S.C. § 112, ¶ 1 as based on a disclosure which is not enabling.

2. Claims 65, 67-69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sternlieb.

3. Claims 30-37 and 51-64 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lefkowitz.

4. Claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ott.

5. Claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gillies.

6. Claims 2, 10, 11, 13, 21, 22, 31, 52, 57, 60, and 67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ott.[3]

7. Claims 1, 3-9, 12, 14-20, 23, 26-29, 37, 38, 43, 58, 61-64, 66, 70, 71, 73, 74, 76-79, and 81 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Ott.

8. Claims 10, 11, 21, 22, and 57 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Ott.

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[3]For claims 2, 13, 31, 52, 60, and 67, the Examiner takes Official Notice of certain facts.

9. Claims 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Ott, Lefkowitz and Kyle.

10. Claims 40 and 82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Taylor.

11. Claims 31, 44, 45, 52, 67, and 85 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gillies in view of Sternlieb.

12. Claims 1-23, 25-39, 41-71, 73-81, and 83-87 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kyle in view of Gillies, Ott, and/or Sternlieb.

13. Claims 24, 40, 72, and 82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kyle in view of Gillies, Ott, and/or Sternlieb and further in view of Taylor.

We reverse with respect to the rejection under 35 U.S.C. § 112, ¶ 1, but we affirm with respect to the rejections under 35 U.S.C. §§ 102(b) and 103(a). Our reasons follow.

OPINION

The Enablement Rejection

The Examiner has rejected claims 30-87 under 35 U.S.C. § 112, ¶ 1 as based on a disclosure which is not enabling (Answer, p. 3). According to the Examiner, "[t]he dual layer of hydrophobic/hydrophilic felt web critical or essential to the practice of the invention, but not included in the claims is not enabled by the disclosure." (Answer, p. 3). The Examiner cites *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976) in support of the rejection.

"The first paragraph of 35 U.S.C. § 112 requires that the specification of a patent must enable a person skilled in the art to make and use the claimed invention." *In re Wands*, 858 F.2d 731, 735, 8 USPQ2d 1400, 1402 (Fed. Cir. 1988). Although not explicitly stated in § 112, to be enabling, the specification must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation. *In re Wright*, 999 F.2d 1557, 1561, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993).

The purpose of the enablement requirement is to "ensure[] that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims." *Crown Operations Int'l. Ltd. v. Solutia, Inc.*, 289 F.3d 1367, 1378-79, 62 USPQ2d 1917, 1924 (Fed. Cir. 2002)(*quoting Nat'l Recovery Techs., Inc. v. Magnetic Separation Sys.*, 166 F.3d 1190, 1196, 49 USPQ2d 1671, 1675 (Fed. Cir. 1999)). Because the inventor is speaking to those of ordinary skill in the art, he or she may begin the discussion at the point at which his or her invention begins. In other words, the inventor need not include in the specification that which is already known and available to one of ordinary skill in the art. *See In re Howarth*, 654 F.2d 103, 105, 210 USPQ 689, 691-92 (CCPA 1981) ("An inventor need not, however, explain every detail since he is speaking to those skilled in the art."). Nor must the inventor necessarily describe how to make and use every possible variant of the claimed invention, for the artisan's knowledge of the prior art and routine experimentation can often fill gaps, provide a basis for interpolation between embodiments, and perhaps even provide a basis for extrapolation beyond the disclosed embodiments, depending upon the predictability of the art.

AK Steel v. Sollac, 344 F.3d 1234, 1244, 68 USPQ2d 1280, 1287 (Fed. Cir. 2003); *see also Wands*, 858 F.2d at 736-37, 8 USPQ2d at 1404 ("Enablement is not precluded by some experimentation such as routine screening."). The question, here, therefore, is whether, with the patent specification as an initial guide, the hypothetical skilled artisan's knowledge of the surrounding art and ability to modestly experiment would have been sufficient to enable him to make and use a stitch bonded facing fabric using a felt web without the dual layer hydrophobic/hydrophilic structure the Examiner states is critical or essential to the practice of the invention.

Unlike the case of *In re Mayhew*, here, the specification does not clearly indicate that the dual layer hydrophobic/hydrophilic felt layer configuration is essential or critical in the practice of the invention, i.e., in a stitch bonded fabric, fluid retaining fabric, and incontinent pad. Particularly, it is noted that, in the Description of the Prior Art, the specification indicates that a typical incontinent pad has a knit or woven facing fabric layer to which is quilted a felt layer. The felt layer is included to provide rigidity to the pad (Patent specification, col. 1, ll. 18-21). The specification then goes on to state that the prior art facing fabric sold under the trademark Comply® is "highly desirable" in incontinent pads because its hydrophobic/hydrophilic dual layer construction wicks away fluids from the face of the fabric (col. 1, ll. 25-35). That the dual layer configuration is highly desirable does not make it essential or critical to the invention. This is especially the case with regard to the claims directed to a stitch bonded fabric rather than the

incontinent pad. Note that in *Mayhew*, the claimed zinc process was wholly inoperative without the step of cooling which was deemed essential to the process.

We are cognizant of the fact that the Summary of the Invention section of Appellants' patent specification characterizes the invention as a fabric including "a felt web having a hydrophobic upper aspect and a hydrophilic lower aspect" and that the only embodiments of the fabric pictured in the Drawings and discussed in the Detailed Description of the Drawings include such hydrophobic/hydrophilic dual layers. In some circumstances, such a narrow characterization of the invention might suffice to show a lack of enablement, but, here, as we discussed above, there is further evidence indicating that fluid retaining fabrics had been made by those of ordinary skill in the art without dual layer fabrics, the felt being used to provide rigidity to the pad.

We are also cognizant of the fact that the dual layer configuration is taught in the specification as being desirable for providing wicking. But wicking is merely taught in the specification as desirable, not as a requirement. Nor do the claims require any particular level of wicking, particularly the claims directed to the stitch bonded facing fabric itself. Thus, the claims need not be enabling for any particular level of wicking.

The Examiner is also concerned that the claims encompass inoperable embodiments (Answer, p. 4-5). But the claims need not exclude inoperative embodiments. What the Examiner must demonstrate is that the number of inoperative combinations is so significant that one of ordinary skill in the art is forced to experiment unduly in order to practice the claimed

invention. *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d 1569, 1576-77, 224 USPQ 409, 414 (Fed. Cir. 1984); *In re Cook*, 439 F.2d 730, 735, 169 USPQ 298, 302 (CCPA 1971). That, however, has not been shown to be the case here.

The specification need not explicitly teach those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without "undue experimentation." *Amgen v. Hoechst Marion Roussel*, 314 F.3d 1313, 1334, 65 USPQ2d 1385, 1400 (Fed. Cir. 2003). The enablement question presented to us here is a legally challenging and close question. However, given that the specification does not clearly indicate that facing fabrics absolutely must contain the dual layers to be functional we ultimately conclude that the evidence is insufficient to support a rejection under 35 U.S.C. § 112, ¶ 1.

Interpretation of "Yarn Face"

Appellants make one overarching argument relevant to each of the rejections over prior art: That the Examiner has failed to properly interpret the phrase "yarn face," a phrase used in each of the claims on appeal, and that no yarn face is shown, disclosed or otherwise suggested in the prior art (Brief, pp.14-15; Reply Brief, pp. 7-10; Supp. Brief, pp. 15 and 18-19; Supp. Reply Brief, pp. 3-7).

Appellants interpret the disputed phrase more narrowly than the Examiner. According the Appellants, "yarn face" is defined in the specification as having very closely spaced or densely packed yarn segments, so dense, in fact, that the "yarn face" is effectively continuous

such that the felt is not generally exposed (Brief, pp. 14-15 referring to patent specification, col. 2, ll. 52-65). The Examiner, on the other hand, concludes that the claims are not so narrow. According to the Examiner, "[n]one of the claims state that the yarn faces must be 'continuous' or even 'effectively continuous.'" (Answer, pp. 25-26).

The main question before us, then, is one of claim interpretation and, specifically, whether the Examiner's interpretation of "yarn face" is reasonable. *See In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1028-29 (Fed. Cir. 1997). We conclude that the Examiner's interpretation is reasonable in light of the evidence. First, we find no definition of "yarn face" in the patent specification at column 2, lines 52-65 or any other portion of the specification as argued by Appellants (Brief, pp. 14-15; Reply Brief, pp. 7-8; Supp. Reply Brief, p. 4). What we do find is a discussion stating that the faces 24 and 26 "are effectively continuous such that web 12 is not exposed thereat, although small gaps or interstices (as at 28) between adjacent yarn segments 18' or 18" may allow viewing of felt surface 20 or 22 upon close inspection." (Patent specification, col. 2, ll. 59-63). That is not a definition, but a further description of the invention and a non-claimed aspect of the invention at that. The more telling description in the patent specification indicates that:

> yarn segments 18' and 18" do not become embedded into the web 12 below surfaces 20 and 22 thereof, but rather extend across the surfaces 20 and 22, and are of sufficient density that yarn segments 18' cooperate to define a top yarn face 24 of fabric 10 above the web upper surface 20 and yarn segments 18" cooperate to define a bottom yarn face 26 of fabric 10 below web lower surface 22 [col. 2, ll. 52-59].

This usage of the word "face" in the specification comports with the ordinary meaning of "face" as a front, upper, or outer surface.[4] Therefore, while the "yarn face" must have a density of yarn which is sufficient to define a front, upper, or outer surface, it need not be "effectively continuous" as further described in the specification.

Our reviewing court has counseled the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages and tells us that, absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition. *In re Bigio*, 381 F.3d 1320, 1324-25, 72 USPQ2d 1209, 1210-11 (Fed. Cir. 2004). Here, there is no express disclaimer of the reasonable broader definition. We, therefore, decline to limit "yarn face" to the narrower definition espoused by Appellants.

We conclude that the Examiner has correctly interpreted the phrase "yarn face" and has correctly refrained from reading extraneous limitations from the specification into the claims.

Anticipation by Ott

Claims 1, 3-9, 12, 14-20, 30, 32-38, 51, 53-56, 58, 59, 61-66, 68, and 69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ott. None of the claims are argued separately. We select claim 30 to represent the issues on appeal. Claim 30 is directed to a facing fabric with a felt web and stitch bonded yarns forming top and bottom yarn faces.

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[4]See definition 5 for face, Merriam-Webster Dictionary, electronic ed., version 2.0 (2000). A copy accompanies our decision.

Appellants argue that the stitch density for the wiper disclosed by Ott is very low and is not consistent with a yarn face according to Appellants' claimed invention (Brief, p. 18). In support, Appellants cite to column 3, lines 31-34 of Ott which states that "[t]he preferred stitch used in this invention has a length of 3 millimeters and is spaced in the cross web direction at 14 stitch lines per inch or 14 guage [sic]."

The argument is not convincing. The portion of Ott cited by Appellants indicates that the space between the stitch lines is less than 1/14th of an inch. It is reasonable to conclude that the stitch bonding of 140-160 denier polyester stitching yarn in 3 mm stitches at 14 stitch lines per inch using a Maliwatt stitching machine would result in a surface that would appear to the eye to be a textile surface or "yarn face" as claimed. Moreover, Ott states that the stitch bonded product described therein is extremely cloth-like owing to the nature of the material layers having been bonded together by a textile method of stitching (Ott, col. 2, ll. 37-39) and describes the product as having a stitched laminate surface 72 (col. 3, ll. 62; *see also* Fig. 2 at 72). The evidence supports the finding that Ott describes a "yarn face."

We find that there is a sufficient level of evidence to support the anticipation rejection maintained by the Examiner. Appellants have failed to rebut this evidence.

Anticipation by Lefkowitz and Gillies

Claims 30-37 and 51-64 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lefkowitz. Claims 30, 32-36, 39, 41, 42, 46-51, 53-56, 65, 68, 69, 80, 83, 84, 86, and 87 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gillies. None of the claims are argued

separately. We select claim 30 to represent the issues on appeal for each of the rejections. While we have reviewed the rejections separately, we will address them together as the issues are sufficiently the same for each.

With regard to each of these rejections, Appellants argue that there is no "yarn face" described in any of the applied references (Brief, pp. 19). We agree with the Examiner that each of the references describes stitch bonded fabrics with the required yarn faces (Answer, pp. 5-7). Each reference describes a stitch bonded felt layer. In each case, the gauge of the stitching is sufficiently dense to form a "face" as claimed. For instance, Example 1 of Lefkowitz describes a felt stitch bonded with yarn of 5 mil diameter in a tricot stitch with a machine gauge of 40 needles per 10 centimeters or 10 chain stitches per inch. Gillies describes a density of 2 to 10 rows per inch with a preference for 5 rows per inch of 150 denier polyester thread (Gillies, col. 5, 23-36). What would appear to the eye in each case is a textile surface or "yarn face" as claimed.

We find that there is a sufficient level of evidence to support the anticipation rejections maintained by the Examiner. Appellants have failed to rebut this evidence.

Anticipation by Sternlieb

Claims 65, and 67-69 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sternlieb. The claims are not argued separately, therefore, we select claim 65 to represent the issues on appeal.

Claim 65 requires a yarn face on one side of a felt layer. Appellants argue that "Sternlieb fails to teach, disclose or otherwise suggest any yarn face as recited in Appellants' claims." (Brief, p. 16).

We agree with the Examiner that the stitch knitted yarns on the lower surface of the scrim 9 of Sternlieb cooperate to form a "yarn face" as required by claim 65 (Answer, p. 5). The stitches are configured to sit on the surface of the scrim and are of such size, configuration, and density that they are the portions that touch any wearing surface, thus, protecting the underlying structure from abrasion (Sternlieb, col. 3, ll. 3-9). There are 12 stitches per inch of 2 ounce per yard configured in a zig-zag pattern overlying the scrim (Sternlieb, col. 2, l. 57 to col. 3, l. 2, and col. 3, ll. 28-31). The evidence is sufficient to support the Examiner's finding of a density sufficient to form a surface representing a "face" of yarn as claimed.

Obviousness

Appellants advance several additional arguments with regard to the rejections under 35 U.S.C. § 103(a). For instance, Appellants argue that claims 1-29 were allowed in the original patent over the same art now being applied by the Examiner in this reissue proceeding (Brief, p. 20). But claims in a reissue application enjoy no presumption of validity. *In re Sneed*, 710 F.2d 1544, 1550 n.4, 218 USPQ 385, 389 n.4 (Fed. Cir. 1983). As stated in 37 CFR § 1.176 (2000), "[a] reissue application will be examined in the same manner as a non-reissue, non-provisional application." Whether the Examiner has taken a position contrary to the position of the original examiner is immaterial.

Appellants further argue that the Examiner's motivation for modifying the teaching of Gillies so as to replace two steps of stitch bonding with one step of stitch bonding to eliminate a step is not persuasive (Brief, pp. 20-21). We are unconvinced by the argument for the reasons provided by the Examiner in the Answer at pages 28-29. The motivation flows from the teachings and suggestions provided in the relied upon references.

Appellants argue that, with regard to the rejections including Kyle, the Examiner has overlooked that, while Appellants' invention produces a product with its own "yarn face," the Kyle product requires an "upper sheet 25" or "protective sheet 41" in order to provide a comfortable facing fabric (Brief, p. 21). Appellants state that their invention eliminates the need for such separate sheets (*Id.*).

We find no reversible error by the Examiner with regard to the rejections relying upon Kyle (Answer, pp. 11-13). Kyle describes an incontinence pad with a hydrophobic layer and a hydrophilic layer. As found by the Examiner, Kyle indicates that "[t]he two layers 'can be sewn, bonded, quilted or welded' to each other (col. 4, lines 65-66)." (Answer, p. 12). Gillies, Ott, and Sternlieb, as found by the Examiner, all provide evidence that stitch bonding was a well-known method of bonding by sewing layers of nonwoven webs together (Answer, p. 12). We also note that Ott further indicates that it was known in the art to use stitch bonding to create a textile-like surface on a dual layer felt web. We agree with the Examiner that it would have been obvious to one of ordinary skill in the art to stitch bond the hydrophobic and hydrophilic layers of Kyle together as an alternative method of attachment. The secondary references indicate that there are

benefits to using stitch bonding such as lower cost while maintaining a textile-like feel, durability and cohesive strength (*see e.g.*, Ott, col. 2, ll. 37-45; Gillies, col. 5, ll. 7-11 and 23-27).

Additionally, Appellants challenge the Examiner's use of Official Notice in combination with Ott in rejecting claims 2, 13, 31, 52, 60, and 67 (Supp. Brief, p. 17). The Examiner states in the rejection that Official Notice is taken of the fact that "it is common and well known in the art to employ scrims to reinforce nonwoven materials." In response to the Appellants' demand for evidence, the Examiner directs Appellants' attention to Sternlieb and Lefkowitz which both describe the use of a reinforcing scrim in a stitch bonded product (Answer, p. 30). Appellants do not challenge the Examiner's evidence in the Supplemental Reply Brief. Moreover, we note that Kyle describes the use of a scrim as well (Kyle, col. 3, ll. 18-23 and col. 8, l. 37: scrim 33 shown in Fig. 5). There is ample evidence supporting the finding of the Examiner.

As a final point, we note that Appellants base no arguments upon objective evidence of non-obviousness such as unexpected results. We conclude that the Examiner has established a *prima facie* case of obviousness with respect to the subject matter of claims 1-87 which has not been sufficiently rebutted by Appellants.

CONCLUSION

To summarize, the decision of the Examiner to reject claims 30-87 under 35 U.S.C. § 112, ¶ 1 is reversed, but the decision to reject claims 1, 3-9, 12, 14-20, 30-39, 41, 42, 46-69, 80, 83, 84, 86, and 87 under 35 U.S.C. § 102(b) and claims 1-87 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

PETER F. KRATZ
Administrative Patent Judge

CATHERINE TIMM
Administrative Patent Judge

LINDA R. POTEATE
Administrative Patent Judge

) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES

CT/tdl

Wood, Herron & Evans, LLP
2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RANDOLPH A. STERN
and
MICHAEL N. BYLES

Appeal No. 2005-0019
Application No. 09/558,329[1]

ON BRIEF

Before KRATZ, TIMM, and POTEATE, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

RESPONSE TO REQUEST FOR REHEARING

Appellants request rehearing[2] of our Decision on Appeal dated January 19, 2005. In that Decision we affirmed with regard to the Examiner's rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103.

In the Brief and Reply Brief, Appellants maintained one overarching argument with respect to all the rejections over prior art. That argument centered on the interpretation of "yarn face" in the

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[1]Application for Reissue of U.S. Patent 5,902,757.

[2]Request for Rehearing filed on February 3, 2005.

claims. Each of the claims includes a "yarn face" which overlies a felt layer. Appellants interpreted a "yarn face" as "having very closely spaced or densely packed segments of the stitch bonding yarns so as to be effectively continuous such that the felt web is not generally exposed." (Brief, p. 15). The Examiner determined that the claims are not limited to "continuous" or "effectively continuous" yarn faces (Answer, pp. 25-26). In our Decision, we concluded that the Examiner's interpretation was reasonable (Decision, pp. 10-11).

Appellants do not argue that we erred in our Decision, rather, they solicit from us a new decision, or an amended decision, with an express statement as to whether a claim amendment reciting "effectively continuous yarn face" would overcome the specific prior art rejections. As pointed out by Appellants (Request, p. 3), we have the authority to make such a statement under 37 CFR § 41.50(c)(eff. September 13, 2004). We declined to execute that authority at the time of our Decision and we continue to decline to execute that authority now.

To the extent that Appellants continue to argue that their claims are limited to articles with "effectively continuous yarn faces" we remain unconvinced for the reasons provided in our Decision. Moreover, even if we had determined that the claims were so limited, we could not agree that all of the rejections would be overcome, particularly in view of the teachings of Ott.

The subject request has been granted to the extent that our decision has been reconsidered, but is denied with respect to making any changes therein.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv)(effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

REHEARING DENIED

PETER F. KRATZ
Administrative Patent Judge

CATHERINE TIMM
Administrative Patent Judge

LINDA R. POTEATE
Administrative Patent Judge

) BOARD OF PATENT
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Appeal No. 2005-0019
Application No. 09/558,329

WOOD, HERRON, & EVANS, LLP
2700 CAREW TOWER
441 VINE STREET
CINCINNATI, OH 45202